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# ORDER FOR SUPPLIES OR SERVICES SCHEDULE - CONTINUATION

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DATE OF ORDER CONTRACT NO.

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ITEM NO.	SUPPLIES/SERVICES	QUANTITY		UNIT	AMOUNT	QUANTITY
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	Admin Office:  HQAD  US Environmental Protection Agency William Jefferson Clinton Building 1200 Pennsylvania Avenue, N. W.  Mail Code: 3803R  Washington DC 20460 Period of Performance: 10/26/2020 to 10/25/2021					
0001	Support for Climate Change Analysis and Indicators ( Task 1 & Task 2)  Period of Performance: 10/26/2020				114,329.00	
	-10/25/2021  Accounting Info: 20-21-B-58F3-000A46-2505-2058FC0042-00 1 BFY: 20 EFY: 21 Fund: B Budget Org: 58F3 Program (PRC): 000A46 Budget (BOC): 2505 DCN - Line ID: 2058FC0042-001 Funding Flag: Complete Funded: \$114,329.00 The Contractor hereby acknowledges and accepts this order by signing and dating below:  Print Name and Title  Signature and Date					
	TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))				\$114,329.00	

#### STATEMENT OF WORK

# **Support for Climate Change Analysis and Indicators**

# **Contracting Officer's Representative (COR):**

Lisa Bacanskas Climate Science and Impacts Branch Climate Change Division

Phone: 202-343-9758

Email: bacanskas.lisa@epa.gov

# Alternative Contracting Officer's Representative (Alt. COR):

Michael Kolian Climate Science and Impacts Branch Climate Change Division

Phone: 202-343-9261

Email: kolian.michael@epa.gov

### I. INTRODUCTION

The Climate Change Division (CCD) in EPA's Office of Atmospheric Programs (OAP) develops and delivers data, analysis, and technical information and assistance to identify technologies and strategies for industries, states, communities and tribes to meet Clean Air Act obligations and other statutory requirements. This includes a range of activities such as managing the annual data reporting, verification and publication of greenhouse gas (GHG) data and compiling the Inventory of US Greenhouse Gas Emissions and Sinks; implementing partnership programs targeting non-CO<sub>2</sub> GHGs; developing analysis and support related to GHG emissions, technologies, economics, science, and policy across key sectors; applying the latest GHG emissions impacts and science information in policy contexts; conducting comprehensive economic analysis of GHG and energy policies; advancing understanding of the key mitigation technologies; general policy and analysis; and coordinating communication. The program coordinates extensively with EPA's headquarters and regional offices as well as other Government agencies and state agencies.

CCD's Climate Science and Impacts Branch (CSIB) is responsible for a variety of analytical activities such as assessing climate change vulnerability and integrating information on climate science, impacts, and mitigation and adaptation strategies into broader analytical frameworks. One of the primary roles of CSIB is to synthesize and leverage existing information on climate science, impacts, indicators, and adaptation to inform policy decisions and communicate science to the public and other audiences.

#### II. PURPOSE AND SCOPE OF WORK

Under the Task Order(s) awarded with this SOW, the Contractor(s) shall coordinate with the primary EPA COR, other EPA technical staff, and external data providers and partners to support EPA in the following project areas:

- Development of Risk and Vulnerability Maps and Metrics
- Technical and Analytical Support
- Publication of Indicators Website and Products

The period of performance for this Task order will consist of a period of 12 months from the award date. Tasks in this SOW may be awarded to one or more contractor(s) to most effectively support the projects' goals. Contractors are not required to bid on all tasks, but rather may submit quotes for selected tasks. The estimated number of hours to complete work under the task order is 2,680 hours.

## III. TASKS AND DELIVERABLES

The following tasks are to be accomplished by the Contractor:

# Task 1: Provide Program Management and Reporting Support for Task Order/Each Task (0 hours)

Description: The Contractor(s) shall provide project management under this Task Order and shall submit a Monthly Progress Report to EPA's Contracting Officer Representative (COR) and Contracting Officer (CO) in accordance with Section V (Project Reporting). During the period of performance, the Contractor shall immediately inform the COR and CO by telephone and/or email of any issue(s) that may impede performance along with any corrective actions needed by EPA or the Contractor(s) to address the issue(s).

In their proposal, the Contractor(s) shall distribute hours and costs for Task 1 among subsequent tasks. Note on Base Period and Option Period One: For Task 1, Provide Program Management and Reporting Support, the identical task description and deliverables schedules are expected under both the Base Period and Option Period One.

In addition to the required contract close out activities, the contractor shall also attend a wrap-up meeting at the end of the period of performance, either via conference call or in person, whichever is most cost-effective to the U.S. Government.

#### **Deliverables Schedule:**

	Deliverables	Schedule
Task 1	Kick-off meeting with EPA	Within 2 weeks of award of call order or
		task(s)
	Draft work plan	Within 1 week of kick-off meeting
	Prepare Monthly Progress	Draft due within 5 business days of kick-off
	Report/Budget Tracking Template meeting; Final due within 5 b	
		EPACOR comments
	Monthly Progress Report	By 10 <sup>th</sup> business day each month

Deliverab	les	Schedule		
Attend wr	ap-up meeting	1 week prior to end of the period of		
		performance, per COR direction		

# Task 2: Components of Risk and Vulnerability (760 hours)

The Contractor shall support EPA's ongoing efforts to build out risk, exposure, and population-based metrics. This includes developing indicators that capture increasing risk and human and societal exposure (e.g., population-based metrics that are health related), which will reflect key social and environmental vulnerabilities. Also, of interest, are characterizing a) the vulnerabilities common to climate-related impacts including health and socio-economic disparities and b) how these vulnerabilities differ in magnitude across sectors (e.g., impacts of sea level rise on economic, societal, and physical attributes of the region).

# Subtask 2.1 Approaches for Characterizing Risk and Social Vulnerabilities to Climate

Designing and developing products that can be used to "map" vulnerabilities to climate change impacts is important for describing differential impacts and providing baseline conditions and context. The Contractor shall work closely with the COR to assess the applicability of vulnerability indices as metrics of climate change impacts (e.g., Cutter et al. 2003¹; Anguelovski et al. 2014; Keenen and Weisz, 2017) and develop approaches to visualize and communicate this information (de Sherbinin et al., 2019²). For example, Reid et al. (2009)³ mapped vulnerability factors for heat-related morbidity/mortality to create a cumulative heat vulnerability index for the United States. The Contractor will support the development of different approaches to mapping vulnerabilities and develop associated graphics to illustrate these vulnerabilities. The task shall involve compiling publicly available datasets and layers on population, public health, and other social and environmental data to visualize/communicate the nature and potential magnitude of risk. The products will be developed in a way that facilitates not only the ability to track changes in population vulnerability over time but also integrate historical analyses of climate change, health impacts (see subtask 2.2), and other social and demographic factors (e.g., socioeconomic data pertinent to environmental justice). The subtask will focus on but is not limited to, the following topics: occupation, air quality, wildfire, extreme heat, and coastal vulnerabilities.

Products for this task include analyses, associated graphics, and accompanying documentation, that quantify and characterize socially vulnerable populations relative to climate-related impacts.

## Subtask 2.2 Approaches for Population Exposure Metrics

Related to the work in Subtask 2.1, the Contractor shall support the development of metrics, which identifies and describes a climate hazard. This shall consider characterizing the ways in which sensitive populations (e.g., children and elderly, minorities, existing health conditions, the mentally ill, and lower income populations), exposed to and harmed by the hazard, are impacted and how population trajectories/dynamics and the hazard are changing. For example, analyzing wildfire smoke plume data

<sup>&</sup>lt;sup>1</sup> Cutter, S. L., Boruff, B. J., & Shirley, W. L. (2003). Social vulnerability to environmental hazards. Social science quarterly, 84(2), 242-261. doi: Doi 10.1111/1540-6237.8402002.

<sup>&</sup>lt;sup>2</sup> https://onlinelibrary.wiley.com/doi/abs/10.1002/wcc.600

<sup>&</sup>lt;sup>3</sup> Reid CE, O'Neill MS, Gronlund CJ, Brines SJ, Brown DG, Diez-Roux AV, et al. Mapping community determinants of heat vulnerability. Environ Health Perspect. 2009;117:1730–1736.

over time and space that is joined with population data from the same geographic area can be used to quantify populations exposed over various time scales including on an annual basis. The Contractor shall consider national scale development but also smaller-scale (e.g., region-specific) features, which reference vulnerabilities associated with existing indicators. The Contractor shall consider addressing a single impact (coastal inundation, or extreme events) or a set of impacts with the analysis. For example, assessing population metrics and imposed vulnerabilities associated with coastal impacts such as inundation and increased risk of coastal flooding, storm surge, infrastructure and property damage. Among the datasets to be used shall be population datasets such as from the US Census Bureau (i.e., 1990, 2000, 2020 decennial census), American community Survey datasets, tiger maps APIs, and map services that are publicly available. The work shall build off, or set the basis for, risk assessments pertaining to the individual threats at the population-level. Further, it shall set the basis for ongoing updates to the data, and thus improved future risk characterization.

#### **Deliverables**

<u>Methodology Memo</u>: The Contractor shall develop a detailed memo describing the methodologies that they will adopt in conducting the analysis described above, and how work will be performed. The memo shall be delivered to EPA for review prior to commencement of the analytic work.

	Deliverables	Schedule
Task 2	Methodology memo	Within 1-2 months of award
	Focused literature review	Within 2 months of award
	Develop approaches to "map"	Draft analyses of proof-of concept for
	existing/known and potential	approaches of impact(s) 6 months from
	vulnerabilities and communicate risk;	award
	include technical documentation	
	Analyses and graphics that	
	characterize and quantify social	
	vulnerability	
	Develop exposure/population metrics	Develop drafts of 3 population-based
	and smaller-scale features (e.g.,	metrics 8 months after award; Deliver up to
	regions, county, other) to reference	3 more by 12 months after award
	vulnerabilities associated with	
	existing indicators; include technical	
	documentation	
	Final products, datasets and layers,	Final communication products with all
	and metrics formated into summary	supporting materials provided by the end of
	report with 3-5, 2-page snapshot	the performance period. The final desk-top
	documents with infographics, graphs,	publishing of these products will be carried
	maps, images, and summary text	out separately by EPA.
	Draft report for potential publication	12 months from award

Task 3. Analytical and Technical and Quick Turn Support (295 hours)

The Contractor will provide technical support on products and technical input reports as directed by the COR. We anticipate this work may entail researching and preparing background materials and revising or

developing figures, maps, text, and technical documentation. The need and schedule for completion of such tasks will be provided by the EPA COR through technical direction and some may be specific quick turnaround requests.

# Support to Finalize Products, Technical Reports, and Manuscripts

Report and Products: Upon direction from the COR, the Contractor shall support EPA in drafting and finalizing portions of EPA products and reports. For example, EPA is leading the development of a compilation of indicators to inform U.S. Global Change Research Program's Fifth National Climate Assessment (NCA5). EPA anticipates this task will provide capacity to help support the development of this section (other support would be provided by USGCRP's coordination office and the NCA technical support team). EPA staff are likely to be involved in the authoring of NCA5, specifically the indicator compilation section. The Contractor shall be prepared to provide modest support in assembling data as necessary to support these efforts. This work on products and reports involves supporting EPA in:

- 1) drafting content for an indicators compilation or other products, including development of text and figures/graphics for report or chapter sections,
- 2) formatting to provide visual appeal,
- 3) revising content in response to comments from external reviews,
- 4) preparing indicator figures and data for inclusion into USGCRP's Global Change Information System (GCIS) including metadata and documentation.

The Contractor shall assist EPA in following scientific integrity and transparency guidelines and other Agency guidance or policy pertaining to data access such as preparing a Scientific Data Management Plan (SDMP) (see also Data Documentation Requirements below).

Manuscripts: The Contractor shall provide modest support for the submission of a manuscript. This work shall include formatting figures, references, and supplementary information as appropriate to meet journal formatting requirements. After incorporation of the COR's comments and preparation of a final manuscript, the Contractor shall submit the required materials to the journal, and plan to address any required revisions following peer review. The Contractor shall cover publication costs as necessary, including payment for open-access fees. Upon receipt of the reviewer comments from the journal, the Contractor, in consultation with the COR, shall address the journal peer-review comments. This will involve preparing a revised manuscript or report based on the comments, including additional computational analysis as required to fully address the comments.

## <u>Data Documentation Requirements</u>

All datasets used and produced under this Task shall be fully documented with metadata (including any source code used for generating output datasets) and provided to EPA upon completion of the work. Per Agency guidelines on data access and transparency, EPA will publicly post all required datasets and publications stemming from this Task. The Contractor shall assist EPA in following scientific integrity and transparency guidelines and other Agency guidance or policy pertaining to data access such as preparing a Scientific Data Management Plan (SDMP).

## **Information Quality Requirements**

The Contractor shall include quality assurance (QA) documentation with the final deliverable(s). The documentation should include how the QA criteria are considered to evaluate existing data, model selection, and model application. The documentation should discuss how the Contractor and EPA ensured that the data compiled and/or generated under the Task Order are complete, accurate, and of the type, quantity, and quality required for their intended use.

## **Deliverables Schedule:**

	Deliverable	Schedule
Task 3	Draft figures and text for product or report.	On a rolling basis
	Complete, formatted drafts of the report to begin internal and external reviews.  Responses to comments table.	On a rolling basis
	Website content and PDF files. Additional data, figures, and information for use in NCA5 drafting.	On a rolling basis
	Peer-review comments incorporated into paper manuscripts, and documentation of all changes made	On a rolling basis
	Completion and submission/ resubmission of final draft report or manuscripts to journals	On a rolling basis

# Task 4: Website Development, Publication and Communication Support (1600 hours)

CSIB publishes climate analysis, data, and products through several conduits, each designed for specific purposes and audiences. EPA works with other federal agencies and organizations to analyze, summarize, and communicate information about observed change related to climate. With help from these partners, EPA has compiled and published a set of climate change indicators as a climate science resource (in print and online). The indicators are based on observed data and long-term trends relevant to the causes and effects of climate change. In a manner accessible to multiple audiences, EPA describes the significance of these trends and their possible consequences for people, the environment, and society. EPA publishes climate change indicator analysis, data, and products through several online platforms, including:

- Climate Change Indicators Website<sup>4</sup> (includes link to downloadable files, fact sheets, summary data files, frequently asked questions, technical documentation, etc.)
- EPA GeoPlatform<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> https://www.epa.gov/climate-indicators

<sup>&</sup>lt;sup>5</sup> https://www.arcgis.com/home/group.html?id=cfb23a6f8d5246a2a1bf0c5d93c39e68#overview

EPA also participates in and contributes to products produced by the US Global Change Research Program (USGCRP) and its Indicator platform<sup>6</sup>. The indicator platform is an interagency collaboration that leverages efforts from across the USGCRP member agencies including EPA and highlights key climate information in the form of indicators.

Work under this task will likely be accomplished in phases and will include incorporating content that EPA has already developed that requires additional steps to be finalized and/or published.

The Contractor shall be prepared to support the development of print, Web-based PDF, HTML and/or dynamic HTML, social marketing, and other information products and approaches. Direction will come directly from the COR in line with Agency priorities and approaches. The Contractor shall follow all EPA directives or other requirements for compliance with standards relating to development and posting of graphics and content; editorial rules; Rehabilitation Act Section 508 requirements; and appropriate Web standards. Upon direction from the COR and in accordance with EPA priorities, the Contractor shall program and/or otherwise add information products to the indicators Web site using Drupal CMS or other EPA-specified and -required software. To accomplish tasks, the Contractor shall require familiarity with a range of programs and software related to graphics-development and -formatting (e.g., Adobe Acrobat Professional, Adobe Illustrator and InDesign, ArcGIS, PowerPoint, Qlik, High Charts, JavaScript) and other software packages as appropriate for preparation of draft and final deliverables. The Contractor shall assist EPA in following scientific integrity and transparency guidelines and other Agency guidance or policy pertaining to data access.

Note that activity undertaken on this task for the indicator's website shall be done in coordination with other website activity being conducted under other contract vehicles. For updates to existing content and addition of indicators, the Contractor shall coordinate with the website manager to make website changes. For new and interactive content, through the COR, the Contractor shall coordinate with the website manager for access to the staging server.

## Subtask 4.1 Climate Change Indicator Website Content

As a first step, and in close coordination with and input from the COR, the Contractor shall draft a memorandum outlining a brief and focused plan for suggested improvements to refresh and update the Climate Change Indicators website. Resources do not allow for a complete overhaul of the existing website and its current general navigation design. The memorandum should include options for updating the online presence of existing indicators, adding new indicators, incorporating already developed content, and new features. The plan should include a proposed schedule for the timing and implementation of the changes.

The contractor shall assist in the update, development and maintenance content for the EPA's Climate Change Indicators website including technical documentation and supporting materials. The Contractor shall help EPA track, update, and maintain climate indicators currently included in EPA's indicator suite including access to and presentation of data, figures, and technical supporting documentation. The Contractor support shall involve compiling newly available or revised data for updating indicators, accessing underlying data sources in consultation with the COR, and downloading and analyzing appropriate datasets. For planning purposes, the Contractor should anticipate updating and/or finalizing approximately 30 of the indicators over the period of performance, on an ad hoc basis in

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<sup>&</sup>lt;sup>6</sup> https://www.globalchange.gov/indicators

response to requests from the COR. The Contractor should anticipate formatting and preparing, at the COR's direction, some or all updated indicators materials for potential use and/or publication by EPA partners, e.g. the U.S. Global Change Research Program's website and Global Change Information System (GCIS). This activity may also include posting links to partner websites, science resources, and developing and posting products in support of recent publications, updates to indicators and the underlying science.

This Task includes but it not limited to the following activities:

Update existing indicators content: text, figures, technical documentation, and CSV files, including:

- Identify and analyze updated data points including quality assurance and quality control of the new data and supporting material
- Maintain internal data workbooks which comprise raw and processed data, results of comparative analyses, quality assurance checks, technical notes, and other documentation.
- Revise figure(s) and related text edits (e.g., key points, background, data sources, indicator notes, and descriptions).
- Maintain, revise, and develop technical supporting documentation for EPA's indicators.
- Assist EPA in updating climate change indicator content from EPA's Geoplatform (geospatial map layers and associated metadata and web applications).

Assist in the design and development of updates to the existing EPA indicators website including:

- Finalize content and prepare indicators, including text, figures, csv data files, stock photos, and technical documentation for publishing on the website.
- Finalize content to revise or replace on the existing website (e.g., homepage rotating banner, FAQs, and Climate Connections Pages
- As directed, make technical corrections and out of date material and links.
- Create and update Qlik Sense Interactive Applications and/or Highcharts for certain indicators (add expanded and clickable features)
- Embed and deploy web applications of interactive indicator content (e.g., story maps, Qlik applications, interactive tools, GeoPlatform web links, etc.)
- Produce downloadable files for updated and new indicators
- Prepare indicator documents for posting to partner websites.
- Implement changes and developing wireframes for new pages and housing new content pages particularly for web content developed under separate vehicles.

Deliverables	Schedule
Memorandum outlining a plan for improvements for	Following discussion at kick-off meeting with COR; two
updating the Climate Change Indicators website,	weeks after approval of work plan
including options for updating the online presence of	
existing indicators, adding new indicators, incorporating	
already developed content, and new features.	
Identify and analyze updated data points, internal data	On a rolling basis, to be determined in coordination
workbooks, revise figures, make text edits, update	with the COR
technical documentation, includes two rounds of EPA	
review	

Finalize changes to indicators, including text, figures, csv	Within one week after EPA delivers comments
data files, stock photos, and technical documentation for	
publishing on the website.	
EPA Geoplatform updates	On a rolling basis, to be determined in coordination
	with the COR
As directed, revise or replace content on the existing	On a rolling basis, to be determined based on plan and
website (e.g., homepage rotating banner, FAQs, and	in coordination with the COR
Climate Connections Pages	
Make technical corrections and out of date material and	On a rolling basis, to be determined based on plan and
links.	in coordination with the COR
Create and update Qlik Sense Interactive Applications	On a rolling basis, to be determined based on plan and
and/or Highcharts for certain indicators, includes two	in coordination with the COR
rounds of EPA review	
Embed and deploy web applications of interactive	On a rolling basis, to be determined in coordination
indicator content (e.g., story maps, Qlik applications,	with the COR
interactive tools, GeoPlatform web links, etc.), includes	
two rounds of EPA review	
Produce downloadable files for updated and new	Within one week of COR direction
indicators	
Prepare indicator documents for posting to partner	To be determined in coordination with the COR
websites, includes two rounds of EPA review.	
Implement changes and developing wireframes for new	To be determined in coordination with the COR
pages and housing new content pages particularly for	
web content developed under separate vehicles; includes	
two rounds of EPA review.	

# Subtask 4.2 Support for Development of New Publication Products

The Contractor shall assist EPA in the development and design, and production, of communication and outreach activities and related products. The Contractor shall identify new and innovative potential products germane to the indicator's effort, to expand the outreach and communication of the indicators to a wider range of audiences or particular audiences of interest. Examples may include development of a product summarizing indicators and data potentially highlighting those which have been updated and/or developed since the last report, products summarizing indicator data in new ways such as through infographics, timelines etc., products featuring stories based on indicators information or regional climate and impacts and deliverables that convey information about overarching indicator-related topics including public health, extreme events, etc. Approaches could include new ways of presenting the current set of indicators such as state and/or regional level derivative products. The contractor shall provide expertise in the fields of data display/visualization, web design, and social media as needed to ensure products are simple, easy to use, and interesting.

For planning and cost-estimation purposes, the Contractor shall provide support for development and production of up to three print- and/or Web-ready indicators-related products.

#### Deliverables:

Deliverables	Due
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Brief memo outlining options for up to three	Following discussion at kick-off meeting with
information products to be developed	COR; two weeks after approval of work plan
Outline for each product	Approximately one each month, starting two
	months after start of POP, at the direction of the
	COR
First draft of each product	Two weeks after approval of product
	development by COR
Second draft of each product	Two weeks after approval of first draft
Final version in Web- and/or print-ready	One week after approval of second draft

# Subtask 4.3 Support for an Indicator Publication

EPA is exploring options for developing a climate change indicators product including an overview or summary report that compiles the various indicators into a topically driven product. EPA may consider various interactive and static options for the publication, with a potential focus on ultimately publishing to the website rather than in print form.

Key areas for which EPA will require Contractor assistance will include:

- Propose options for interactive or static report
- Develop content and format of the report
- Coordinate draft reviews of the report
- Perform specific analyses (e.g., GIS spatial analysis, comparative analysis, temporal analysis, and downscaling or aggregating indicator data) to help validate, expand, or interpret existing data series
- Assist in preparing the documents and associated materials for peer-review.
- Incorporate external peer or technical review comments (peer review to be conducted under a separate contract vehicle)

The Contractor shall prepare a workplan and timeline for the development of the report, and provide an outline of the report to the COR. For the development of the climate change indicators report, the Contractor shall provide draft versions of the report for review by EPA management and staff, as well as other stakeholders internal and external to the Agency. EPA shall synthesize comments and provide feedback to the Contractor for incorporation of those comments into the report, unless otherwise specified. For planning purposes, the Contractor shall take into consideration the preparation of up to five (5) revisions of draft reports as there will potentially be multiple reviews of the document

## Deliverables:

Deliverables	Schedule
Development and delivery of a workplan and time-line	Following discussion at kick-off meeting with COR
for the development of the report and associated key	
deliverables	
Options for interactive or static report	Within four weeks after approval of work plan
Outline for the Report	Within two weeks after deciding on report concept

Initial draft of indicators report and technical	To be determined once outline is developed
documentation, suitable for EPA review	
Revisions to initial report and draft technical-	2 weeks after receipt of comments from EPA COR.
documentation based on comments from COR	
Second review draft of report and technical document,	To be determined once first draft received
suitable for peer review	
Three (3) options for the design of the website that	Within two weeks of draft report going to peer review
incorporates the report	
Transfer of peer-review comments to Contractor	To be determined based on peer review schedule
Third-review draft of report and technical document,	6 weeks after receipt of peer-review comments
documenting and incorporating peer-review comments	
Revisions to third-review drafts from COR to contractor	TBD depending on peer review and release date
Fourth review draft of report and technical document	2 weeks after receipt of comments from EPA
from Contractor to COR	
Comments on fourth drafts of report and technical	TBD depending on peer review and release date
document from COR to Contractor	
Final report and technical document from Contractor to	TBD depending on peer review and release date
COR	
First draft website for review	2 weeks after approved design (subject to change based
	on finalization of text)
Second draft website for review	2 weeks after receipt of comments from EPA
Web-posting of approved final report and technical	TBD depending on peer review and release date
document	
Documentation (e.g., spreadsheet format) of each	Within 2 weeks of receipt of peer-review comments from
comment provided by the COR and action taken to	COR
address it.	
Integration and documentation of data in database	Schedule to be determined upon award of task
format	
Files containing graphical elements in the form of	Schedule to be determined upon award of task
figures, tables, other presentations	
Detailed technical-support documentation providing	Schedule to be determined upon award of task
information about indicators and/or features developed	
in this task	

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES			
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DAT	E 4.	REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)			
P00001	See Block	16C PF	PR-OAR-21-01349				
6. ISSUED BY CODE	HOAD	7.	ADMINISTERED BY (If other than Item 6)	CODE			
HQAD US Environmental Protection William Jefferson Clinton Bu 1200 Pennsylvania Avenue, N. Mail Code: 3803R	ıilding						
Washington DC 20460							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  SCIENCE APPLICATIONS INTERNATIONAL CORPORATION  Attn: Richard Democker  12010 Sunset Hills Rd  Reston VA 201905856		(X)	(x) 9A. AMENDMENT OF SOLICITATION NO.  9B. DATED (SEE ITEM 11)  x 10A. MODIFICATION OF CONTRACT/ORDER NO. 68 HERH19D0031 68 HERH21F0015 10B. DATED (SEE ITEM 13)				
CODE	FACILITY CODE		and the second s				
CODE 078883327			10/20/2020 NDMENTS OF SOLICITATIONS				
separate letter or electronic communication which ind RECEIVED AT THE PLACE DESIGNATED FOR THE OFFER. If by virtue of this amendment you desire to each letter or electronic communication makes referent 12. ACCOUNTING AND APPROPRIATION DATA (If required see Schedule	udes a reference to the RECEIPT OF OFFER change an offer alreadnce to the solicitation auired)	ne solicitation and amer RS PRIOR TO THE HO dy submitted , such cha and this amendment, a	UR AND DATE SPECIFIED MAY RESULT IN RE ange may be made by letter or electronic commun	WLEDGEMENT TO BE :JECTION OF YOUR nication, provided specified.			
	CT/ORDER IS MODIF H IN ITEM 14, PURSU	IED TO REFLECT THE IANT TO THE AUTHOR	IANGES SET FORTH IN ITEM 14 ARE MADE IN E ADMINISTRATIVE CHANGES (such as change RITY OF FAR 43.103(b). IORITY OF:				
D. OTHER (Specify type of modification	*						
X Mutual Agreement of	the parties	3					
E.IMPORTANT: Contractor Sis not  14. DESCRIPTION OF AMENDMENT/MODIFICATION DUNS Number: 078883327		n this document and re- ection headings, includ	7 /7	15			
TOCOR: Michael Kolian Max Ex	pire Date:	02/15/2025	InvoiceApprover: Michael	Kolian Alt			
Invoice App: Lauren E Gentil	е						
The purpose of this modifica							
1) Increase the number of la ( Section 5 of Award documen needed over the current labo labor maximum.	t). The Con	tractor est	imated that about (b)(4 ho	urs will be			
2) The new estimate LOE for Continued	the Base Pe	eriod would	be ((b)(4) hours.				
Except as provided herein, all terms and conditions of the	ne document reference						
15A. NAME AND TITLE OF SIGNER (Type or print)			6A. NAME AND TITLE OF CONTRACTING OF	FICER (Type or print)			
			romeka Hall				
15B. CONTRACTOR/OFFEROR	15C.		6B. UNITED STATES OF AMERICA (分kurn 12)》(4:15 1)。 行 6:10 18:20:10	16C. DATE SIGNED FLECTRONIC SIGNATURE 08/10/2021			
(Cignature of portion authorized to sign)			(Signature of Contracting Offices)	00/10/2021			

 CONTINUATION SHEET
 REFERENCE NO. OF DOCUMENT BEING CONTINUED
 PAGE
 OF

 68HERH19D0031/68HERH21F0015/P00001
 2
 2

NAME OF OFFEROR OR CONTRACTOR

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

ITEM NO.	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	3) All other terms and conditions remain unchanged.				
	LIST OF CHANGES: Reason for Modification: Supplemental Agreement for work within scope Total Amount for this Modification: \$0.00 New Total Amount for this Version: \$0.00 New Total Amount for this Award: \$114,329.00				
	Payment:  RTP Finance Center  US Environmental Protection Agency  RTP-Finance Center (AA216-01)  109 TW Alexander Drive  www2.epa.gov/financial/contracts  Durham NC 27711  Period of Performance: 10/26/2020 to 10/25/2021				